

WEST DES MOINES AMPHITHEATER

DESIGN UPDATE

SEPTEMBER 12TH, 2018



AGENDA

- **Process Review**
- **Amphitheater Programming**
- **Acoustics (Initial Review / Recommendations)**
- **Stage / Canopy Design**
- **Site Diagrams / Function**
- **Final Site Design**
- **Acoustics Review of Design**
- **Discussion**

Process Review

- Initial Neighborhood Meeting (Fall 2017)
- Public Meeting (Fall 2017)
- Stakeholder Meetings (Fall 2017)
- Program Analysis (Fall 2017) (McClure)
- Design / Precedent Research (Spring/Summer 2018)
- Final Acoustics Review of the Design (Summer 2018)
- City Review / Value Engineering / Budgeting (Summer 2018)
- Initial Site Plan Submittal (August 2018)
- Construction (2019)

Amphitheater Programming

- Parks & Recreation Department Programs
 - Great American Campout Family Movie
 - Des Moines Metro Community Band Bash
 - Des Moines Metro Community Choir Concert
 - Illumifest Live Performers / Family Movie
 - Community Karaoke
 - Comedy Night
 - Boat-In Performance
 - Nature Education



Amphitheater Programming

- Hosted Concert Series (4-6 concerts per year)
 - Orchestra
 - Tribute / Cover Band
 - Bluegrass / Jazz
 - Country / Rock
 - R & B / Alternative
 - Major Band (Year 4 or 5)



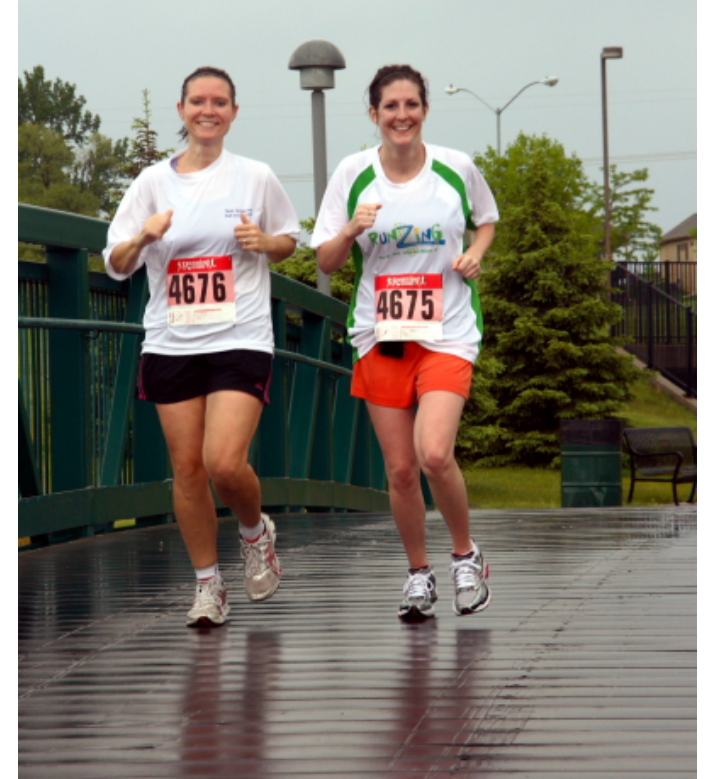
Amphitheater Programming

- Hosted Theater Season (1 – 2 shows)
 - Tallgrass Theatre
 - Seedlings Children's Theatre
 - School Performances
- Hosted Festivals
 - Film Festival
 - Acoustic Jam Festival
 - Cultural Festival



Amphitheater Programming

- Other Uses
 - Community Special Event Rentals – Fundraiser Walks/Runs
 - Private Rentals – Weddings / Recitals
 - Library Programs
 - School District Field Trips
 - Outdoor Fitness Programs



Amphitheater Programming

- **Event Season – Typically April through October**
 - **2020 - First full season**
- **Event End Times – Typically no later than 10:00 pm**
 - **If an occasional event is scheduled past 10:00 pm, sound permit would require City Council approval & neighbors within 370' would be notified**
- **Permitting**
 - **Special Event Permits, Food Truck Permits, & Amplified Sound Permits would be required**
- **Staffing**
 - **City staff person on site during events**

Amphitheater Programming

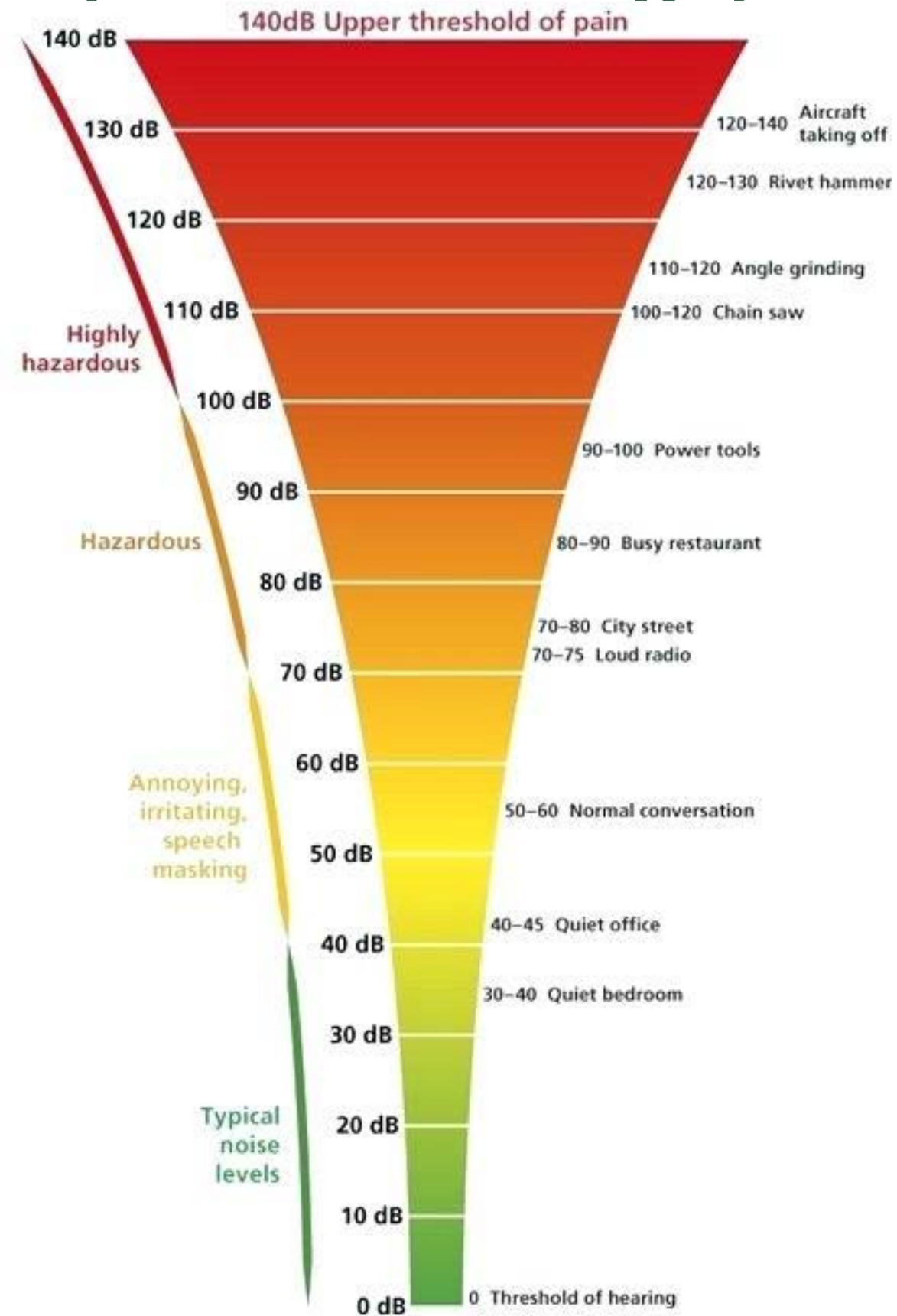
- **Scheduling**
 - **Parks & Recreation Department will lead City Campus Events Team to coordinate City, School District, Valley Church, and community events**
- **Communication**
 - **Amphitheater webpage on City's website with updated calendar of events**
 - **Parks & Recreation Department staff available by phone or e-mail**
 - **Will invite input from the community on programming from year to year**

Our #1 Goal: To be a good neighbor!

Acoustics Review (Initial readings)



Acoustics Review (Initial readings)



Acoustics Review (Initial readings)

- 24 Hour Measurements

	LAeq [dBA]			
	Location 1	Location 3	Location 4	Location 5
Daytime	57	63	68	60
Nighttime	56	56	64	58



Acoustics Review (Initial readings)

- Short Term Measurements

	LCeq [dBC]					
	Location 1	Location 2	Location 3	Location 4	Location 5	Residential Property Noise Limit
Daytime	44	65	58	59	49	76
Football game	53	56	65	56	57	74
Nighttime	44	44	49	46	46	72



Acoustics Review (Initial readings)

- Canopy to angle up or curve up
- Curved or angled side walls
- Minimum 8 foot wall at rear of canopy

STAGE / CANOPY DESIGN



Amphitheater

City of West Des Moines, Iowa

 ABD Engineering & Design

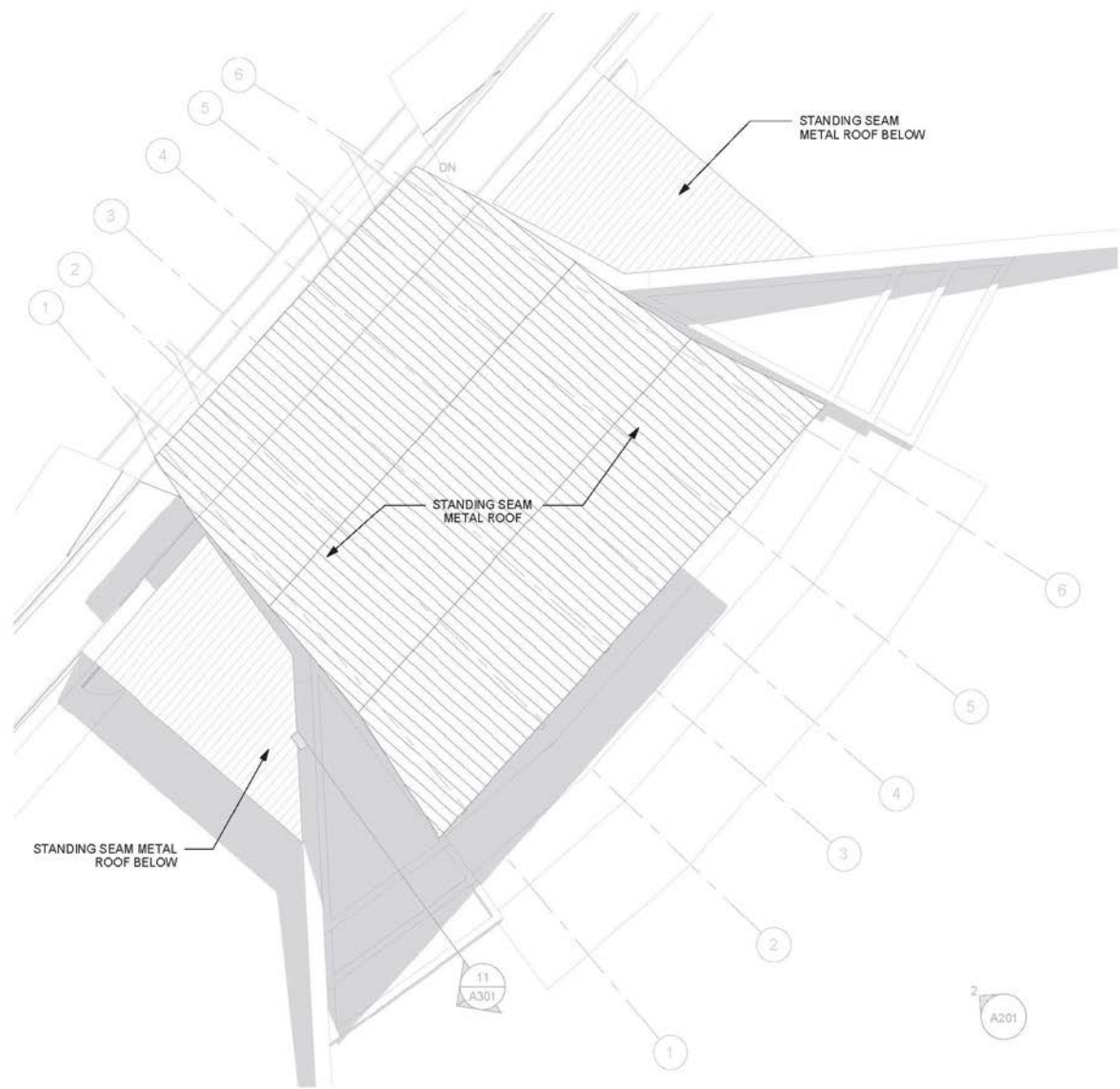
CONFLUENCE

 OPN
ARCHITECTS

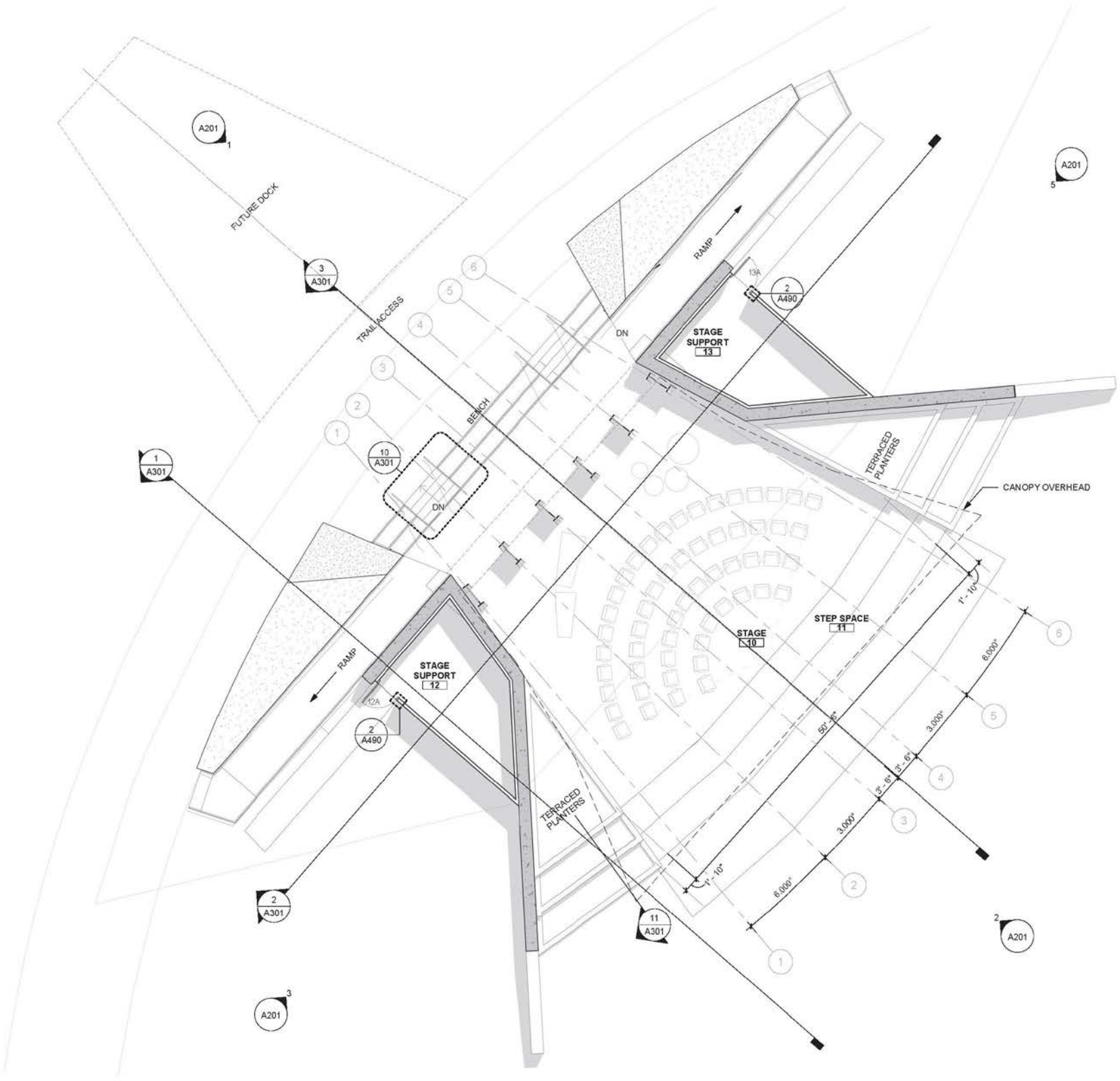




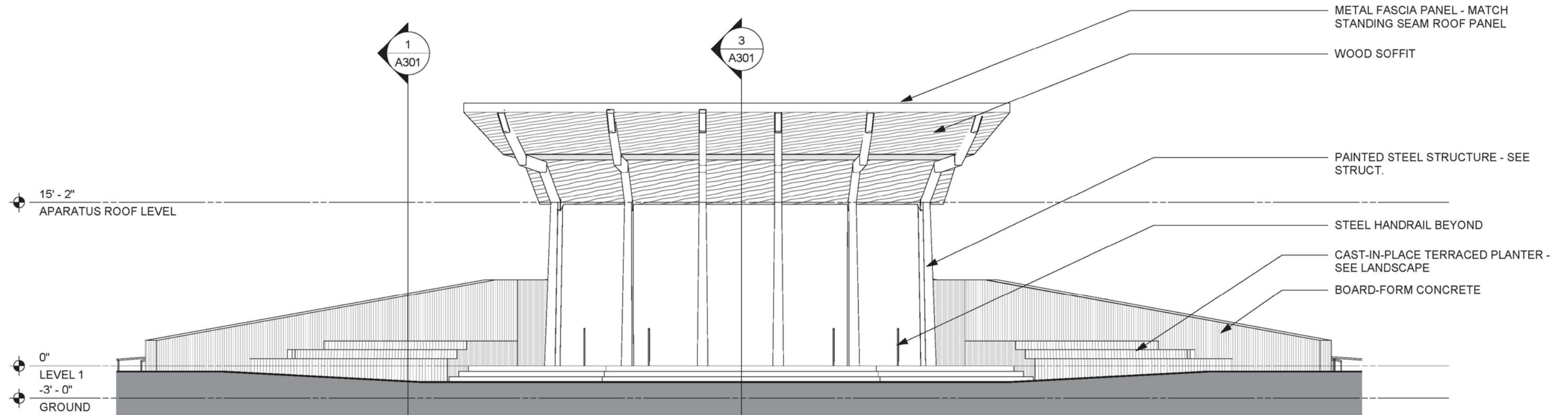
- Stage was sized to accommodate the WDM Community Band



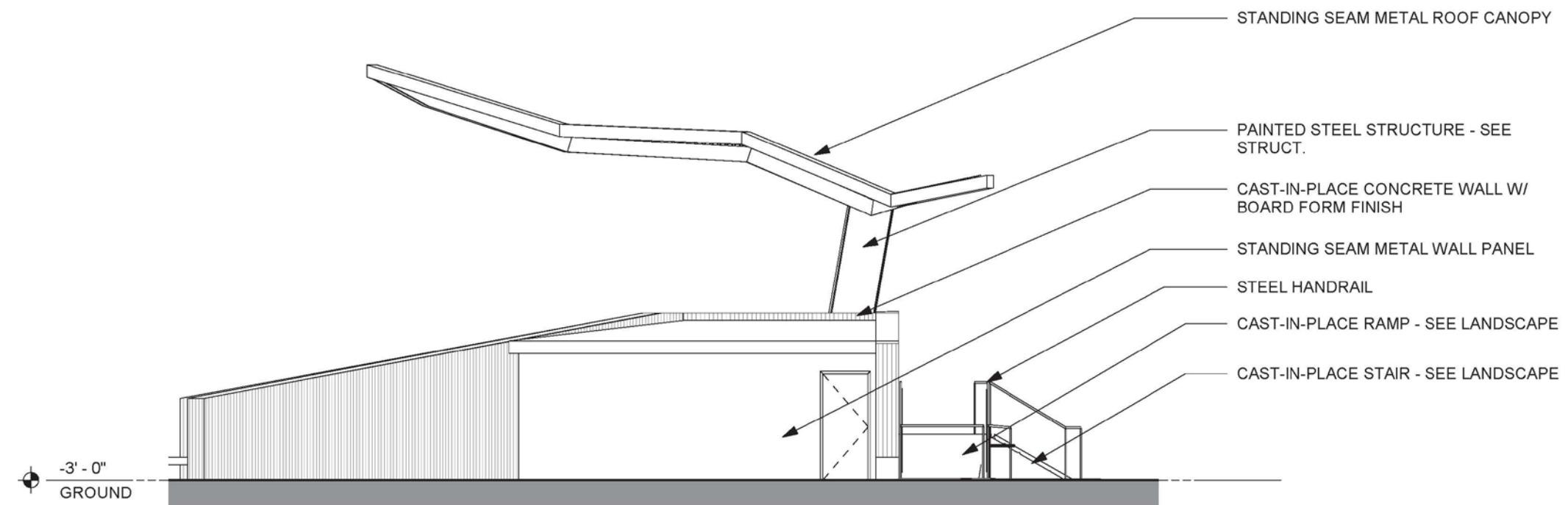
ROOF PLAN



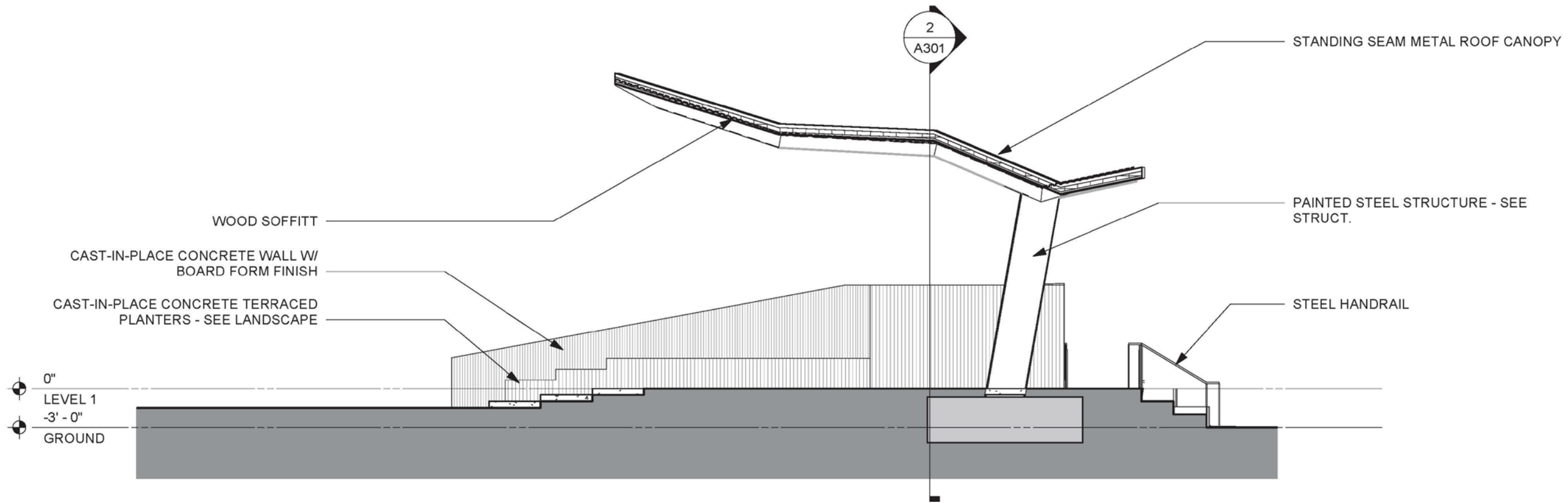
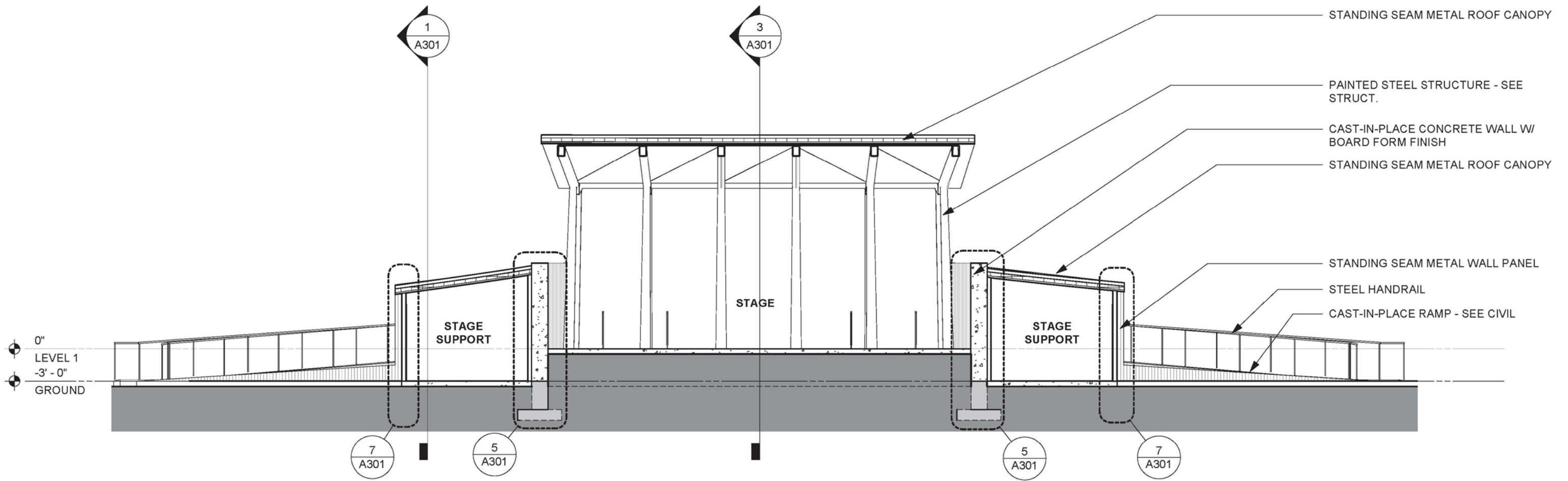
FLOOR PLAN



SOUTH ELEVATION



EAST ELEVATION



SITE DIAGRAMS



Amphitheater

City of West Des Moines, Iowa



CONFLUENCE



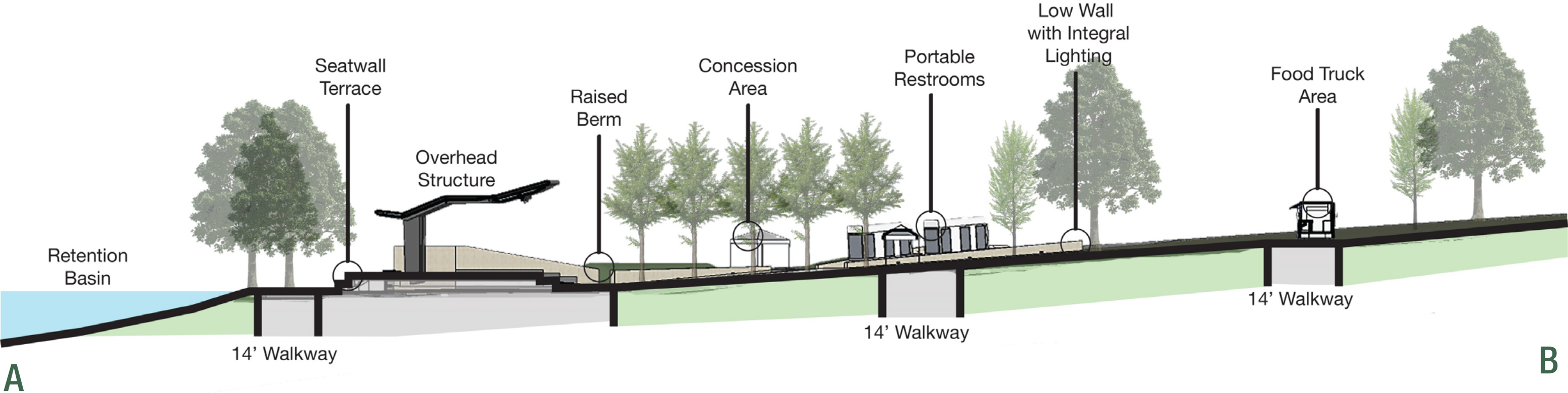
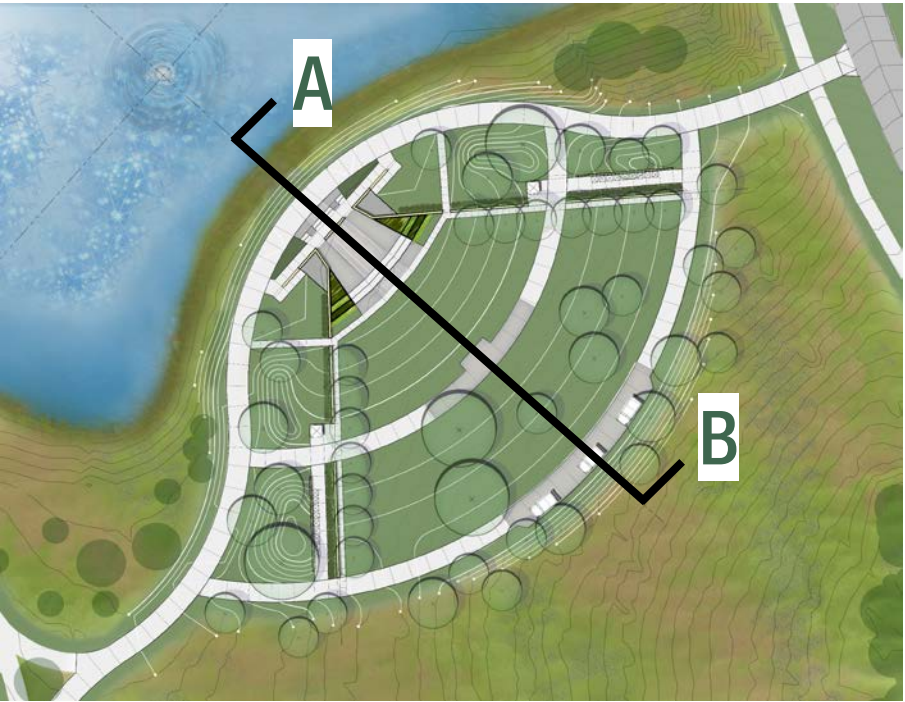
Site Diagrams – Parking Analysis



Site Diagrams



Site Diagrams – Site Section (Overall)



LIGHTING



Amphitheater

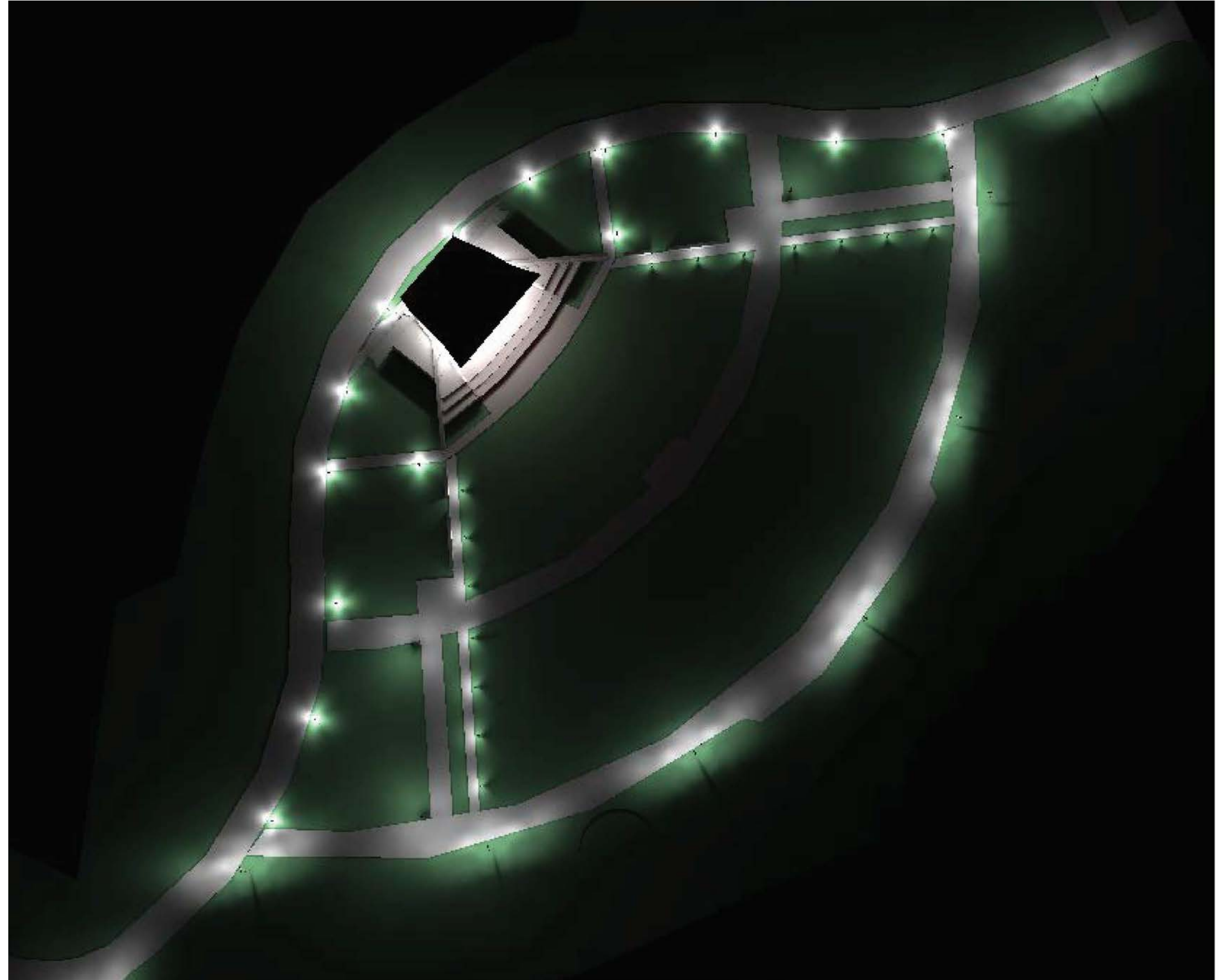
City of West Des Moines, Iowa



CONFLUENCE



Site Lighting



Stage Lighting



Stage Lighting



Stage Lighting



Stage Lighting



Stage Lighting



DESIGN



Amphitheater

City of West Des Moines, Iowa



CONFLUENCE







Amphitheater

City of West Des Moines, Iowa

ABD Engineering & Design

CONFLUENCE

OPN
ARCHITECTS



FINAL - ACOUSTICS



Amphitheater

City of West Des Moines, Iowa

ABD Engineering & Design

CONFLUENCE

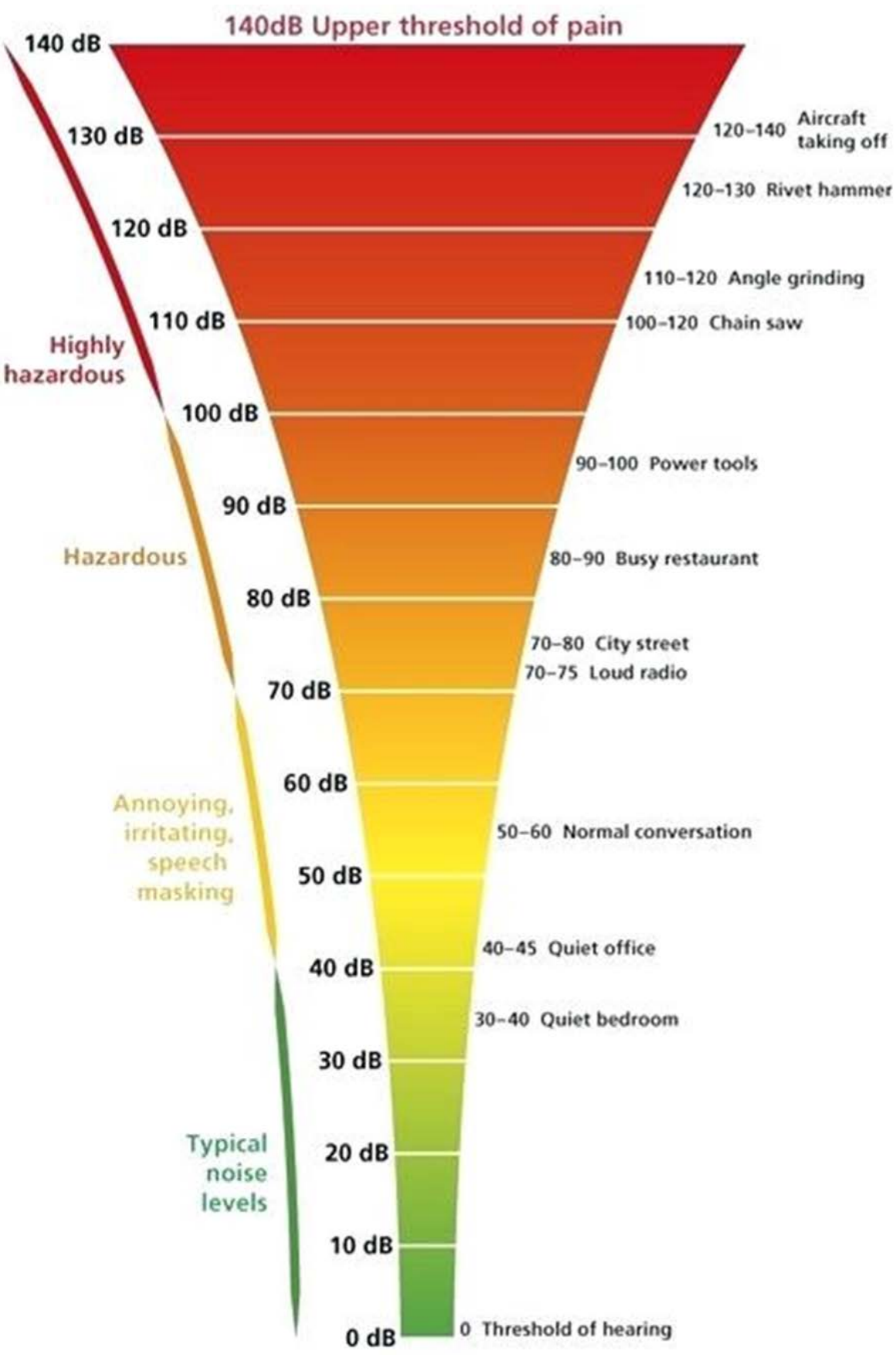
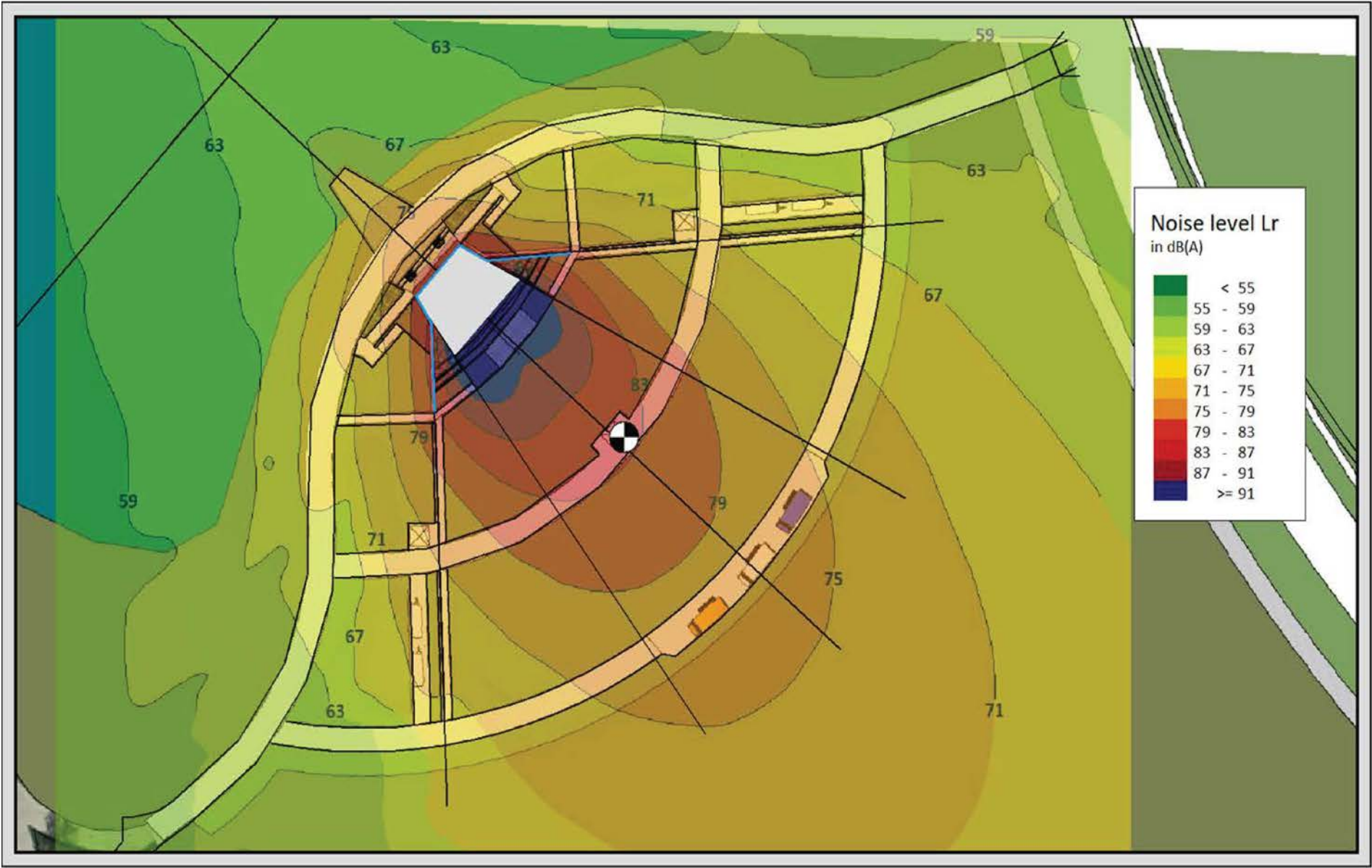
OPN
ARCHITECTS

Final Acoustics Review

- **Assumptions –**
 - **Unamplified Music (Wind Ensemble or Orchestra)**
85 dBA at the mix location
 - **Amplified Music (Music group with microphones and speakers)**
95 dBA at the mix location
 - **Constant sound source**

Final Acoustics Review

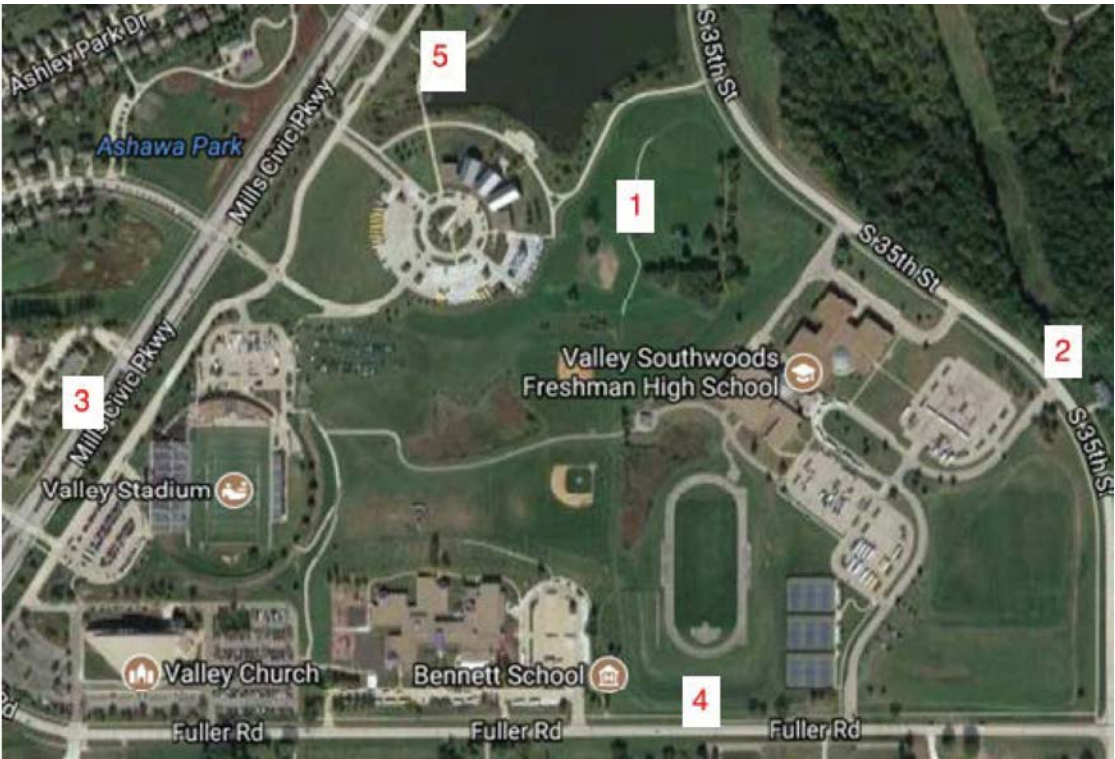
- Noise Modeling of Stage Area



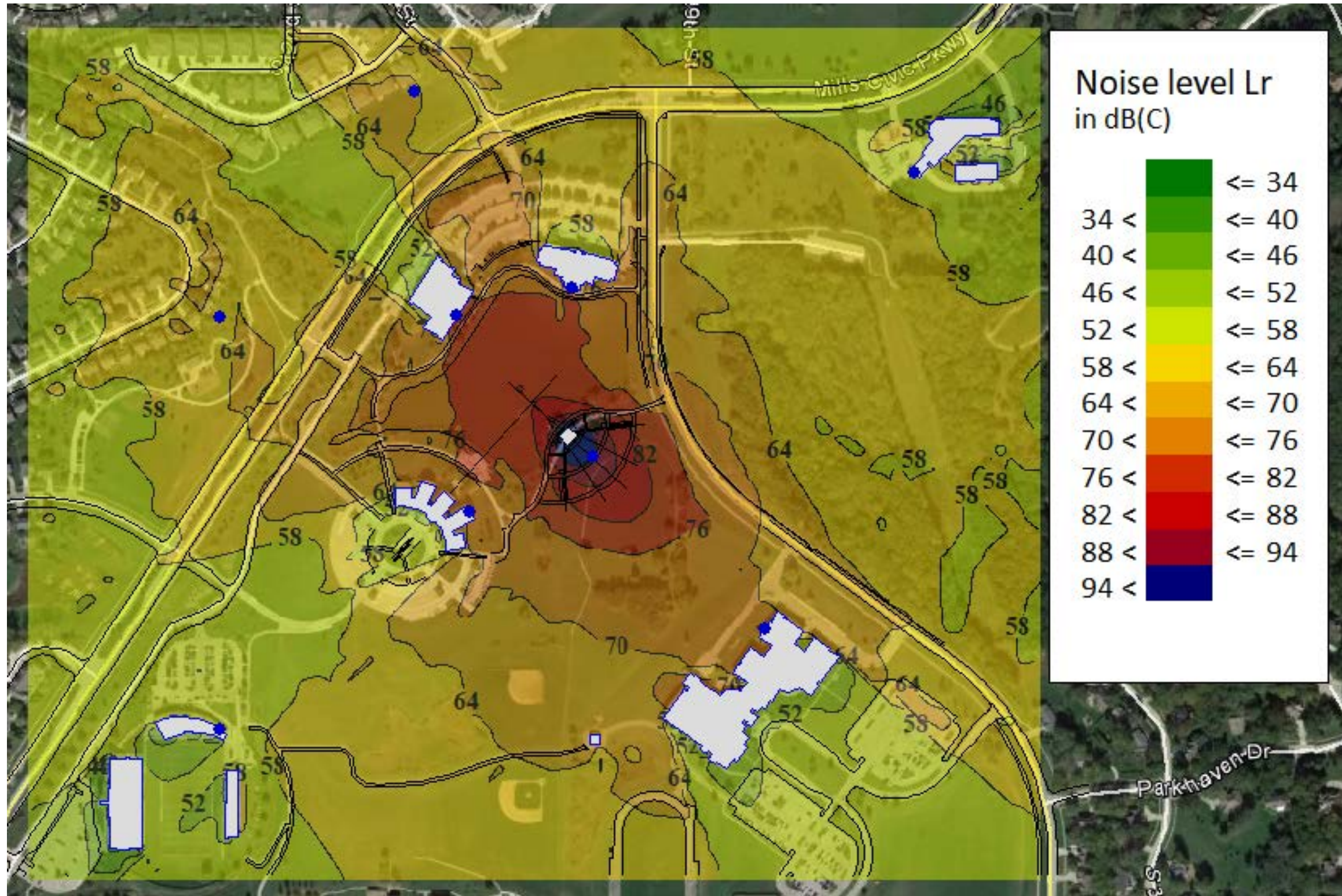
Final Acoustics Review

- Noise Modeling Results

	LAeq [dBA]					Residential Property Noise Limit
	Location 1	Location 2	Location 3	Location 4	Location 5	
During Football Game	56	64	67	62	65	60
Predicted Unamplified Music	85	48	36	48	54	60



Final Acoustics Review



- Noise Modeling Results (Amplified Music)
- Residences below 75 dBC limit.

Final Acoustics Review

- Canopy directs sound to seating area
- Predicted sound levels below code limits for unamplified and amplified music
- No wall needed to meet code limits



ParksRec@wdm.iowa.gov



DISCUSSION



Amphitheater

City of West Des Moines, Iowa



CONFLUENCE

